

In the Claims:

1. (Previously Amended) An isolated and purified nucleic acid segment encoding the hyaluronate synthase of SEQ ID NO:2.

2 - 59. (Canceled)

60. (Previously Added) An isolated and purified nucleic acid segment encoding a hyaluronate synthase, wherein the isolated and purified nucleic acid segment comprises the nucleic acid segment of SEQ ID NO:1.

61. (Previously Added) A recombinant expression vector comprising the nucleic acid segment of claim 1.

62. (Previously Added) The recombinant expression vector of claim 61, wherein the recombinant expression vector is a plasmid.

63. (Previously Added) The recombinant expression vector of claim 61, wherein the recombinant expression vector is an expression vector having a promoter operatively linked to the nucleic acid segment of claim 1.

64. (Currently Amended) The recombinant expression vector of ~~any of~~ claims **claim** 61, 62 and **or** 63, placed in a recombinant strain of *Bacillus* or *Escherichia* or *Enterococcus*.

65. (Currently Amended) The recombinant expression vector of claim 64 wherein the recombinant strain of *Bacillus* is selected from the group consisting of *Bacillus subtilis*, *Bacillus licheniformis*, **or** *Bacillus thuringiensis*.

66. (Previously Added) A recombinant expression vector comprising the nucleic acid segment of claim 60.

67. (Previously Added) The recombinant expression vector of claim 66, wherein the recombinant expression vector is a plasmid.

68. (Currently Amended) The recombinant expression vector of claim 66, wherein the recombinant expression vector is an expression vector having a promoter operatively linked to ~~the nucleic acid segment of claim 1~~ **the isolated and purified nucleic acid segment of SEQ ID NO:1, wherein the isolated and purified nucleic acid segment encodes the hyaluronate synthase of SEQ ID NO:2.**

69. (Currently Amended) The recombinant expression vector of ~~any of~~ claims **claim 66**, 67, **or** 68 and 69, placed in a recombinant strain of *Bacillus* or *Escherichia* or *Enterococcus*.

70. (Currently Amended) The recombinant expression vector of claim 69 wherein the recombinant strain of *Bacillus* is selected from the group consisting of *Bacillus subtilis*, *Bacillus licheniformis*, **or** *Bacillus thuringiensis*.

71. (Currently Amended) The recombinant expression vector of claims **claim** 63 or 68, wherein the promoter is a heterologous promoter.

72. (Currently Amended) The recombinant expression vector placed in a recombinant strain of *Bacillus* or *Escherichia* or *Enterococcus* of claims **claim** 64 and 69 wherein the strain of *Bacillus* or *Escherichia* or *Enterococcus* having the recombinant expression vector therein is capable of producing hyaluronic acid.

73. (Newly added) The recombinant expression vector placed in a recombinant strain of *Bacillus* or *Escherichia* or *Enterococcus* of claim 69 wherein the strain of *Bacillus* or *Escherichia* or *Enterococcus* having the recombinant expression vector therein is capable of producing hyaluronic acid.